	Application No.	Applicant(s)
Notice of Allowability	09/478,682	KOLAWA ET AL.
	Examiner	Art Unit	
	Ted T. Vo	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *7/06/04*.

2. ☒ The allowed claim(s) is/are *1-37*.

3. ☐ The drawings filed on _____ are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☒ to Paper No./Mail Date *1/30/03*.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

ANTONY NGUYEN-BA
PRIMARY EXAMINER

1.   The amendment and arguments filed on 7/06/04 to independent Claims 1, 19, 32 and 37, have

been fully considered. The amendment and the arguments overcome the rejection under 35 U.S.C.

103(a) as being unpatentable over the prior art of record, Cline, US No. 5,313,616 (Claims 1-14,19-27,32-

35,37) and the rejection under 35 U.S.C. 103(a) as being unpatentable over Cline (US No. 5,313,616) in

view of the prior art of record, Beizer, "Software Testing Techniques" (Claims 15,28,36).

Reasons for Allowance

2.   Claims 1-37 are allowed.

Prior art of record, Cline, discloses a method for testing and verifying the conformance of an

application program that includes means scanning an application program for identifying procedure calls

in the source text. In response to identifying each procedure call encountering in the application program,

it generates a stub for the procedure as part of an instrumented program. The instrumented program is

compiled to produce an instrumented executable binary file when run to output testing.

Prior art of record, Beizer discloses a software testing technique by building a program model

independently from the program to represent the program behavior, and running the built model in order

to understand the behavior of the program, and thus a user can modify the program.

However, as pointed out by Applicants in referring to independent Claims 1, 32, 37 that Cline

does not teach or suggest "parsing a source code of the computer program to identify behavior of <u>an</u>

<u>external function called by a function under test</u> in the source code", where Applicants point out the "stub"

is different from <u>an external function called by a function under test</u> because the Cline's "stubs" are for

calling the code to certify (remarks: page 10, last four lines and page 11, lines 1-4), and the "stubs" are

simply monitoring code (remarks: page 12, lines 3-6). As further pointed out by Applicant that Cline does

not teach "*generating a new function to be called by the function under test in the source code for*

mimicking some of the identified behavior of the external function" (remarks: page 12, lines 14-17)

because the assembly code in the Cline's tables does not suggest "*mimicking some of the identified*

behavior of the external function" (remarks: page 12, lines 23-25).

Furthermore, as pointed out by Applicants in referring to independent Claim 19 that the "stubs" of Cline do not emulate some of the identified behavior of a smaller components (remarks: page 15, line 8-12), and Cline does not teach *replacing one or more of the plurality of smaller components with one or more of respective generated stubs* because Cline's teaching is "adding monitoring code" (remarks: page 15, line 13-20).

Therefore, the following is an examiner's statement of reasons for allowance:

The cited prior arts taken alone or in combination fail to teach the claims to a method, a system, and a computer readable medium for testing a computer program comprising at least features,

"*parsing a source code of the computer program to identify behavior of an external function called by a function under test in the source code;*

responsive to the identified behavior of the function under test, generating a new function to be called by the function under test in the source code for mimicking some of the identified behavior of the external function", as recited in such manners in independent Claims 1, 32, and 37;

and so as,   .

"*replacing one or more of the plurality of smaller components with one or more of respective generated stubs;*

testing the plurality of smaller components individually with the generated stubs emulating some of the identified behavior, wherein the generated stubs have the same signature as the respective replaced one or more of the plurality of smaller components", as recited in such manners in independent Claim 19.

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (703) 308-9049. The examiner can normally be reached on 8:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

After October 25, 2004, examiner can be reached at new telephone number (571) 272-3706 and the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3694.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV
Patent Examiner
AU 2122
September 14, 2004

ANTONY NGUYEN-BA
PRIMARY EXAMINER